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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/896,858	06/29/2001	Boris Gelfand	2127	9028

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EXAMINER
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NGUYEN, CINDY

ART UNIT	PAPER NUMBER
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2161

DATE MAILED: 12/06/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/896,858

Applicant(s)

GELFAND, BORIS

Examiner

Cindy Nguyen

Art Unit

2171

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 12 July 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-6 and 15-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-6 and 15-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 29 June 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- ~~Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).~~
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

### Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

### Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_
- ☐ Interview Summary (PTO-413) Paper No(s) \_\_\_\_\_
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other:

### DETAILED ACTION

This is in response to amendment filed 07/12/04.

Applicant's arguments have been considered but are moot in view of the new ground(s) of rejection.

#### ***1. Claim Rejections - 35 USC § 101***

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

The claimed invention is directed to non-statutory subject matter.

Claims 1 and 15 are rejected under 35 U.S.C. 101 because the claims are not useful in technical art therefore they are non statutory and also they have non-function description material and function relationship. This differs, for instance, from a computer implemented method.

Regarding claims 2-6, 16-20, these claims depend from claims 1 and 15 respectively and are therefore rejected.

#### ***2. Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

**3. Claims 1-6 are rejected under 35 U.S.C. 102(e) as being anticipated by Berner et al. (US 5907846).**

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Regarding claim 1, Berner discloses: a collection of data relating to multiple instances of multiple entity types, the data collection comprising:

a) a plurality of data cells containing all of the data in the collection (302, 304 or 306, fig. 3, and corresponding text, Berner), with each cell being a data construct that contains a single element of data (col. 7, lines 10-11, Berner) and each cell containing

i) a single instance identifier value (ID 111) identifying one specific instance of a specific entity type (name Jane, 304, fig. 3, Berner);

ii) a single attribute type identifier value (job grade K5) identifying one specific attribute type for the specific entity type (name Jane, 304, fig. 3, Berner); and

iii) an attribute value for the identified one specific attribute type (salary, 304, fig. 3, Berner).

Regarding claim 2, all the limitations of this claim have been noted in the rejection of claim 1. In addition, Berner discloses: wherein each data cell further contains a single entity identifier value identifying the specific entity type (id 111, 304, fig. 3, Berner).

Regarding claim 3, all the limitations of this claim have been noted in the rejection of claim 2. In addition, Berner discloses: wherein all cells having the same instance identifier value and the same entity identifier value together define a cell set containing all of the data in the collection relating to the one specific instance of the one specific entity type (all the tables 302, 304, 306 have name Jane and ID 111, Berner).

Regarding claim 4, all the limitations of this claim have been noted in the rejection of claim 2. In addition, Berner discloses: wherein at least one cell has an attribute value (salary, fig. 3, Berner) that contains multiple, separate values (35000, 28000, fig. 3, Berner) relating to the specific attribute type of the specific instance of the specific entity type (35000, 28000, fig. 3, Berner).

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Regarding claim 5, all the limitations of this claim have been noted in the rejection of claim 2. In addition, Berner discloses: wherein each cell has only four fields relating to actual data, the four fields containing the instance identifier value (ID), the entity identifier value (name), the attribute type identifier (job grade), and the attribute value (salary) (see fig. 3 and corresponding text, Berner).

Regarding claim 6, all the limitations of this claim have been noted in the rejection of claim 5. In addition, Berner discloses: wherein no two cells contain the same values in all of the four fields (each cells in the fig. 3 contains difference values, Berner).

#### **4. Claim Rejections - 35 USC § 103**

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

**5. Claims 15-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Berner et al. (US 5907846) in view of Cheng et al. (US 6356896).**

Regarding claim 15, all the limitations of this claim have been noted in the rejection of claim 1. In addition, Berner discloses: a linking cell defining an association between the first cell and the second cell, the linking cell having four fields each having values, the value of two of the fields of the linking cell being the same as two of the values of the first cell fields (table 306 contains the ID and name field of 304, see 306, fig. 3 and corresponding text, Berner). However, Berner didn't disclose: the value of the remaining two fields of the linking cell being the same as two of the value of the second cell fields. On the other hand, Cheng discloses: the value of the remaining two fields of the linking cell being the same as two of the value of the second cell

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fields (table 400 contains the department filed and % in department table and employee and address in the employee table, see fig. 4 and corresponding text, Cheng). Thus, at the time invention was made, it would have been obvious to a person of ordinary skill in the art to include the value of the remaining two fields of the linking cell being the same as two of the value of the second cell fields in the system of Berner as taught by Cheng. The motivation being to enable the system performed by the join operation on relational database stored on the data store to generate the database management (col. 1, lines 6-8, Cheng).

Regarding claim 16, all the limitations of this claim have been noted in the rejection of claim 1. In addition, Berner/Cheng discloses: wherein the linking cell has the same format as the first and second cells (302, 304, 306 have the same four fields, see fig. 3, Berner).

Regarding claim 17, all the limitations of this claim have been noted in the rejection of claim 1. In addition, Berner/Cheng discloses: wherein the linking cell utilizes a flag to indicate that the linking cell contains linking information (col. 8, lines 40-51, Berner).

Regarding claim 18, all the limitations of this claim have been noted in the rejection of claim 1. In addition, Berner/Cheng discloses: wherein the first, second, and linking cells each contain the following four fields: an entity instance filed, an entity type filed, and attribute type field and an attribute value field (as ID, name, age, gender or ID, name, Job Grade, salary or ID, name, project name, location (fig. 3 and corresponding text, Berner).

Regarding claim 19, all the limitations of this claim have been noted in the rejection of claim 1. In addition, Berner/Cheng discloses: wherein the linking cell contains the entity instance filed value and the entity type filed value of the first cell as the values of its own entity instance field and its entity type field (as ID and name), respectively; and further wherein the linking cell

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contains the entity instance filed value and the entity type field value of the second cell as the values of its own attribute value filed and its attribute type field respectively (table 400 contains the department filed and % in department table and employee and address in the employee table, see fig. 4 and corresponding text, Cheng).

Regarding claim 20, all the limitations of this claim have been noted in the rejection of claim 1. In addition, Berner/Cheng discloses: further comprising a second linking cell also having an entity instance field, an entity type filed, and attribute type field, and an attribute value field, wherein the second linking cell contains the entity instance field value and entity type field value of the second cell as the values of it own entity instance field and it entity type field, respectively; and further wherein the second linking cell contains the entity instance field value and the entity type field value of the first cell as the values of its own attribute value field and its attribute type filed, respectively (304, fig. 3 and corresponding text, Berner).

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### Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Lowry et al. (U.S 4864497). Method of integrating software application programs using an attributive data model database.

Handel et al. (U.S 6195651). System, method and article of manufacture for a tuned user application experience.

Gupta et al. (U.S 6154748). Method for visually mapping data between different record formats.

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Carey et al. (U.S 6421658). Efficient implementation of typed view hierarchies for ORDBMS.

Gupta et al. (U.S 6438562). Parallel index maintenance.

Heubner et al. (U.S 6101502). Object model mapping and runtime engine for employing relational database with object oriented software.

#### **6. Contact Information**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Cindy Nguyen whose telephone number is 571-272-4025. The examiner can normally be reached on M-F: 8:00-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Safet Metjahic can be reached on 571-272-4023. The fax phone numbers for the organization where this application or proceeding is assigned are 703-746-7239 for regular communications and 703-746-7240 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-3900.

*cn*

Cindy Nguyen  
December 1, 2004

  
**FRANTZ COBY**  
**PRIMARY EXAMINER**